JOURNAL OF ELECTROANALYTICAL CHEMISTRY

Vol. 324 Nos. 1 and 2 10 FEBRUARY 1992

CONTENTS

Electrochemical reactions with protonations at equilibrium. Part 14. The cubic scheme
E. Laviron and R. Meunier-Prest (Dijon, France) 1

Study by cyclic voltammetry of a reversible surface charge transfer reaction when the reactant diffuses to the electrode
J.A. Garrido, R.M. Rodríguez, R.M. Bastida and E. Brillas (Barcelona, Spain) 19

New concept for a potentiostat for on-line ohmic drop compensation in cyclic voltammetry above 300 kV s^{-1}
C. Amatore and C. Lefrou (Paris, France) 33

The effects of tetraphenylporphyrin and its metal coordination compounds on H^+ ion transfer across the water/nitrobenzene interface
X.H. Xia, W.D. Su and S.M. Zhou (Fujian, People's Republic of China) 59

Voltammetric study of protonated 1,10-phenanthroline cation transfer across the water/nitrobenzene interface
H. Doe, K. Yoshioka and T. Kitagawa (Osaka, Japan) 69

Synthesis, characterization and electropolymerization of ferrocene monomers with aniline and phenol substituents
C.P. Horwitz, N.Y. Suhu and G.C. Dailey (Troy, NY, USA) 79

Reactivity of radical-anions and dianions derived from electrochemical reduction of tetraphenylbutatriene and 1,1,4,4-tetraphenyl-1,3-butadiene
M.L. Vincent and D.G. Peters (Bloomington, IN, USA) 93

Study of the voltammetric behaviour of josamycin across the water–nitrobenzene interface
R. Fan and J. Di (Suzhou, China) 107

Monoelectronic reduction of 1-alkyl-3,5-di(alkylcarbamoyl) pyridinium ions as a model of the NAD^+/NADH system. Obtaining 1,4-dihydropyridines
J.-C. Leprêtre, D. Limosin and G. Pierre (Grenoble, France) 115

Interfacial behaviour of semiconducting RuS_2 electrodes: a kinetic approach
H. Colell, N. Alonso-Vante and H. Tributsch (Berlin, Germany) 127

Electrochemical behaviour and preconcentration of uranyl(VI) at Nafion-coated glassy carbon electrodes
P. Ugo, B. Ballarin, S. Daniele and G.A. Mazzocchin (Venice, Italy) 145

On the oscillation characteristics of anodic copper dissolution
P. Fricoteaux (Reims-Cédex, France), Z.H. Gu and T.Z. Fahidy (Waterloo, Ontario, Canada) 161

Oxygen reduced species in molten $Li_2CO_3 + K_2CO_3$ (42.7 + 57.3 mol%) at 650°C. A thermodynamic, voltammetric and convolution potential sweep characterization
G. Moutiers, M. Cassir and J. Devynck (Paris, France) 175

Photoelectrochemical reduction of carbon dioxide on a p^+/p-Si photocathode in aqueous electrolyte
L. Junfu and C.Y. Baozhu (Jinan, People's Republic of China) 191

Electrochemical generation of highly reduced oligoanthrylene systems — a voltammetric study
J. Mortensen, J. Heinze (Freiburg, Germany), H. Herbst and K. Müllen (Mainz, Germany) 201

Spectroelectrochemical study of bilirubin in dimethyl formamide
S. Dong, Y. Yang and G. Cheng (Changchun, China) 219

Microstructural and morphological changes induced in glassy carbon electrodes by laser irradiation
N.M. Pontikos and R.L. McCreery (Columbus, OH, USA) 229

In situ studies of a dispersed platinum on carbon electrode using X-ray absorption spectroscopy
M.E. Herron (Southampton, UK), S.E. Doyle, S. Pizzini, K.J. Roberts (Glasgow, UK), J. Robinson (Coventry, UK), G. Hards (Reading, UK) and F.C. Walsh (Portsmouth, UK) 243

Difference between the electrochemical reductivities of *trans* and *cis* isomers of an azo compound in the assembled monolayer film
Z.F. Liu, K. Hashimoto and A. Fujishima (Tokyo, Japan) 259

Study of the electrochemical reduction of isonicotinic acid at a mercury electrode
R. Rodríguez-Amaro, R. Pérez, L. Camacho and J.J. Ruiz (Córdoba, Spain) 269

Surface structural and electrochemical investigations of pyrolytic carbon film electrodes prepared by chemical vapour deposition using ethene as carbon source
A. Eriksson, A.-S. Norekrans and J.-O. Carlsson (Uppsala, Sweden) 291

Promotion of the electrochemical response of some negatively charged proteins at an edge-plane graphite electrode by various redox inert cations: an electrochemical manifestation of Frumkin adsorption
D. Datta (Calcutta, India), H.A.O. Hill (Oxford, UK) and H. Nakayama (Saitama, Japan) 307

Poly(pyrrole-metallotetraphenylporphyrin)-modified electrodes. Part 2
A. Deronzier, R. Devaux, D. Limosin and J.-M. Latour (Grenoble, France) 325

Adsorption of benzonitrile at the aqueous solution/gold (111) interface
J. Richer, A. Iannelli and J. Lipkowski (Guelph, Canada) 339

Inhibition of the electrode reduction of an adsorbed species by the competitive adsorption of a surfactant. Study of the cefazolin–Triton X-100 system at the Hg–H_2O interface
E. Muñoz, R. Rodríguez-Amaro, J.J. Ruiz, J.L. Avila, L. Camacho (Córdoba, Spain) and V. López (Madrid, Spain) 359

Three-dimensional phase-sensitive ac voltammetry for the study of adsorption processes. An application to the adsorption of sodium dodecyl sulphate at the mercury–electrolytic solution interface
N. Papadopoulos, S. Sotiropoulos and P. Nikitas (Thessaloniki, Greece) 375

Short communications

Two-component diffusion with reaction in chronoamperometry. Approach to equilibrium conditions in the diffusion layer
D.H. Evans (Newark, DE, USA) 387

A simple method for evaluating the current in the cyclic voltammogram for reversible systems
T. Suzuki, I. Mori, H. Nagamoto, M.M. Ito and H. Inoue (Tokyo, Japan) 397

Preliminary note

A model to characterize the impedance of electrochemical capacitors arising from reactions of the type $O_{ad} + n\ e^- \rightleftharpoons R_{ad}$
B.V. Tilak, C.-P. Chen (Niagara Falls, NY, USA) and S.K. Rangarajan (Karaikudi, India) 405

Author index 415

Subject index 417